FINANCIAL INTEGRATION AND INTERNATIONAL ASSET PRICING OF ASEAN-5 STOCK MARKETS: THE PRICING OF GLOBAL, REGIONAL AND CURRENCY RISK

HAWATI BINTI JANOR

UNIVERSITI SAINS MALAYSIA

2009

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by

HAWATI BINTI JANOR

Thesis submitted in fulfillment of the requirements
for the degree of Doctor of Philosophy

September 2009

ACKNOWLEDGEMENTS

In the name of Allah the Almighty and the Most Graceful, Alhamdulillah, thanks to ALLAH S.W.T for giving me the time, strength, inspiration, perseverance and patience and whose blessings has made the completion of this thesis possible.

However, this thesis could not have been completed without the guidance, support, understanding and encouragement of many individuals. Foremost, to my supervisor Associate Professor Datin Dr Ruhani Ali who has advised me efficiently and effectively from the beginning through the end of the writings. I am grateful for her continous support and encouragement and for giving comments and ideas on how to improve the thesis despite her already tight schedule. A special debt gratitude is also extended to Dr. Roselee Shah and the internal examiners Associate Professor Dr. Zamri Ahmad and Dr. Suhaimi Shahnon. The thesis has benefited immensely from critical comments and suggestions received from them.

Due appreciation is also extended to colleagues who regularly enquire on my progress and without their assistance, encouragement and support it is impossible for me to complete this thesis. Special thanks and gratitude to my dearest husband Haji Rusli bin Alwi for being so patience, understanding and caring through the years spent preparing this thesis. Last but not least, due appreciation is extended to my mother, my sons and daughters and relatives for their support and understanding that helps to facilitate the completion of this thesis.

For every one of you, I can only pray that Allah will bestow upon you with a blessed life.

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ABSTRAK

Beberapa kajian lepas mengenai integrasi kewangan mendapati pasaran saham ASEAN-5 berintegrasi di peringkat global dan regional. Walaupun secara teorinya integrasi kewangan tersebut boleh mempengaruhi perletakan harga aset kewangan, namun kajian mengenai perletakan harga aset bukan sahaja tidak menyokong sepenuhnya teori tersebut malahan kurang memberi penekanan kepada integrasi kewangan regional. Justru itu, tesis ini mengkaji perletakan harga saham di pasaran ASEAN-5 dengan mengambil kira integrasi kewangan global dan regional. Khususnya ia mengkaji sama ada risiko global, regional dan mata wang asing diletak harga dalam pulangan saham di pasaran ini. Di samping itu kajian ini juga melihat faktor risiko mana yang lebih penting dalam mempengaruhi pulangan saham bagi pasaran tersebut. Kajian ini menggunakan dua model yang berdasarkan kepada andaian samada terdapat pariti kuasa beli atau tidak. Sekiranya tiada pariti kuasa beli maka faktor risiko yang terlibat hanyalah faktor risiko pasaran global dan regional, tetapi sekiranya terdapat pariti kuasa beli maka faktor risiko mata wang asing perlu juga dimasukkan. Kajian ini menggunakan data bagi tempoh Januari 1991 hingga Disember 2006 dengan menggunakan pasaran Amerika Syarikat, Jepun, Korea, Hong Kong dan China sebagai proksi pasaran global dan mata wang tempatan berbanding dollar dan yen dan kadar pertukaran efektif benar sebagai proksi mata wang asing. Bagi mengambil kira kesan krisis kewangan Asia 1997, tempoh kajian seterusnya di bahagikan kepada dua sub-tempoh iaitu sebelum dan selepas krisis kewangan. Kajian ini mendapati faktor risiko global, regional dan mata wang asing diletak harga dalam pulangan saham ASEAN-5 dan faktor risiko regional adalah lebih dominan dalam mempengaruhi pulangan saham pasaran ini kecuali negara Singapura tertakluk kepada proksi pasaran global. Hasil kajian yang diperolehi menunjukkan bahawa faktor risiko global, regional dan mata wang asing adalah risiko sistematik dan tidak boleh dipelbagaikan, justru itu para pelabur di pasaran saham ASEAN-5 diberi ganjaran kerana menanggung ketiga-tiga risiko tersebut. Hasil kajian ini juga mencadangkan bahawa ketiga-tiga risiko ini perlu diambil kira dalam pembuatan keputusan kewangan seperti pembiayaan dan pelaburan antarabangsa di pasaran ini. Di samping itu, faktor risiko regional yang didapati lebih dominan dalam mempengaruhi pulangan saham perlu diberi penekanan yang lebih berbanding dengan faktor risiko global dan mata wang dalam aspek pengurusan risiko. Bagi kajian masa hadapan, hasil kajian ini mencadangkan penggunaan model faktor berbilang adalah lebih sesuai digunakan dan perlu mengambil kira faktor risiko global, regional dan mata wang asing. Selain itu, hasil kajian yang memperlihatkan terdapatnya kesan krisis kewangan mencadangkan kesan tersebut perlu diambil kira dalam mengkaji perletakan harga risiko global, regional dan matawang asing dalam pasaran saham ASEAN-5. Juga, hasil kajian yang sensitif kepada pemilihan proksi pembolehubah mencadangkan pemilihan proksi pasaran global dan mata wang asing adalah penting dan boleh memberi implikasi kepada hubungan risiko dan pulangan bagi pasaran saham ASEAN-5.

FINANCIAL INTEGRATION AND INTERNATIONAL ASSET PRICING OF ASEAN-5 STOCK MARKETS: THE PRICING OF GLOBAL, REGIONAL AND CURRENCY RISK.

ABSTRACT

Several studies have documented evidence on the global and regional integration of ASEAN-5 stock markets. While theoretically financial integration is suggested to have implications on the asset pricing, empirically it is not fully supported and the focus is more on the global integration. Thus this study examines the asset pricing of ASEAN 5 stock markets that consider the global and regional integration. Specifically it investigates whether global, regional and currency risk factors can explain ASEAN-5 stock returns and if they do to unveil the relative importance of global versus regional risk factors in explaining returns in these markets. In doing so, the study employs two models which relates to the assumption of whether purchasing power parity holds or not. First model using global and regional market risk as the relevant risk factors and the second model to incorporate currency risk together with global and regional market risk. The study used data for the period of January 1991 to December 2006 with United States, Japan, Korea, Hong Kong and China as proxy for global markets and bilateral local currency against dollar and yen and real effective exchange rates as proxy for exchange rates. The study period is further divided into two sub-periods to consider the impact of 1997 Asian financial crisis; sub-period before and after the crisis. The study found that while global and regional market risk and currency risk are priced in ASEAN-5 stock markets, the regional risk factor is more dominant in explaining ASEAN-5

stock returns except for Singapore for selected proxy of global market. The pricing of global, regional and exchange rate risk implies that both global and regional market risk factors and also exchange rate exposure are non-diversifiable and investors are compensated for bearing these risk. Such evidence also suggest that these three risk factors must be incorporated in making international financing and investment decisions in these markets. The greater role of regional risk factor in explaining deviations in some of the returns suggests that the risk management decision should be focusing more on the regional risk factors relative to global and currency risk. In addition, the findings suggest the usefulness of multifactor model in examining stock returns of ASEAN-5 and give directions on what may be useful to contain as variables in constructing multi-factor asset pricing frameworks specifically the global, regional and currency risk. Further more, the results suggest that one should separate the global, regional and currency risk when analyzing ASEAN-5 stock markets. The impact of financial crisis on the risk return relationship found in this study warrant that subsequent studies relating to the pricing of global, regional and currency risks in ASEAN stock markets should include the structural break analysis. In addition, the sensitiveness of the results to the choice of global index and exchange rates suggest that the choice of proxy for the global returns and exchange rates have implications on the risk return relationship on ASEAN-5 stock markets.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The rapid economic growth in the Pacific Basin countries and Asian emerging markets, coupled with the liberalization efforts undertaken by these countries have opened the possibility of international investment and portfolio diversification. Several studies have identified these countries as an important market in improving diversification effects (Clare & Priestley, 1998; Bailey & Stulz, 1990). Bailey and Stulz (1990) have explored a substantial benefit to global investors from diversifying into these markets resulting from the fact that these markets are uncorrelated with each other and with developed markets.

Specifically for the ASEAN-5 economies namely Malaysia, Indonesia, Singapore, Philippines and Thailand; Clare and Priestley (1998) reported that factors such as above average growth rates, government privatization programmes and the increase in the flow of funds from developed countries have led to the growth of these countries' economies and equity markets. On the growth rates, Chan and Liu (2002) reported that the average annual growth rates for the ASEAN 5 had been in the range of 7-8 percent from year 1990 to 1996. Such development was accompanied by an incredible increase in the size of market capitalization in their stock markets (Gooptu, 1994). As reported by Gooptu (1994), the flow of portfolio investments to emerging financial markets has increased from $6.2 billion in 1987 to $37.2 billion in 1992. Although this figure includes largely debt instruments such as bonds, certificate of deposit and commercial paper, foreign investors show an increasing interest in equities of these markets (De Santis & Imrohoroglu, 1997).

Table 1.1 further substantiates the growth of the ASEAN-5 equity markets. As can be seen from the table, the market capitalization of these countries has grown tremendously. For example, Thailand stock market capitalization grew from 1 billion dollars in 1984 to over 115 billion dollars in 2004. While the market capitalization only accounted for 4.16 percent of gross national product (GNP) and 28 percent of gross domestic product (GDP) in 1984 and 1990 respectively, in 2003 it accounted for 83 percent of GDP. Despite the financial turmoil in 1997, foreign investment such as investment from the United States (US) in these five countries at the end of 1998 stood at more than US$41 billion, 9.2 percent higher than the 1997 figure, showing that foreign investors still have strong confidence in the future economic development of this region (Chan & Liu, 2002).

Table 1.1 ***Growth of ASEAN-5 Stock Markets***

	Market Capitalization (US$ millions)			*Number of Listed Companies*			*Market Capitalization*		
Country/ Year	1984	1990	2004	1984	1990	2004	1984 as % of GNP	1990 as % of GDP	2003 as % of GDP
Indonesia	85	8,080	73,251	24	125	331	0.10	7.1	26.2
Malaysia	19,401	48,600	190,011	217	282	962	61.29	110.4	162.3
Thailand	1,720	23,900	115,099	96	214	439	4.16	28	83
Philippines	834	5,930	28,948	149	153	233	2.73	13.4	29.2
Singapore	12,247	34,300	145,117	121	150	475	64.01	93	158.9

Source: World Development Indicators of the World Bank (2005)

Such rapid growth of equity investments has motivated interest to assess the risk and returns inherent in these markets. Investors need to know the risk associated with their investment since they must be compensated for bearing risk and this is in accordance with investment principle that in a market dominated by risk-averse investors, riskier securities must have higher expected returns. As pointed out by Jan, Chou and Hung (2000) that these markets have stand out as the world's fastest growing region, thus to gain the benefits of investing into these markets, the study of asset pricing is needed to connect the expected market's return to the market's risk. In addition, a thorough understanding of the sources of risk in equity markets is also useful for important financial market activities such as risk management, asset allocation and the development and implementation of regulatory framework (Hashmi & Tay, 2007). There is however, some conflicting empirical evidence on pricing factors that explain variations in expected stock returns in emerging equity markets specifically in ASEAN countries (De Groot & Verschoor, 2002), thus it is not clear which risk factor explains stock return deviations and such issue motivates research interest with regards to asset pricing in ASEAN market.

Meanwhile, there are significant evidences suggesting the integration of the world financial market among others are Zhang (2006); Davies (2006) and Sharma and Wongbangpo (2002) and financial theories suggest that such evidences may have an impact on the stock risk return relationship. Financial market integration can be understood as a situation where there are no quantitative and qualitative barriers like tariffs, taxes, restriction on trading in foreign assets or information costs which hampers the free flow of capital from one market to another. Thus, in integrated financial markets, domestic investors can buy foreign assets and foreign investors can buy domestic assets. Factors such as globalization, trade and financial liberalization and technological advancement have been identified to contribute to the process of financial market integration. Zhang (2006) points out that increased globalization and liberalization of barriers to trade improves capital flow across national borders resulting in increase integration of international financial markets. As various liberalization events occur, a country's stock market can move from a segmented regime to an integrated one, often facilitates by the relaxation of government restrictions on foreign participation in their equity markets. Even in the absence of loosening investment policies, country funds and American Depository Receipts (ADR's) do exist which allow foreign investment in equity markets (Goldberg & Delgado, 2001). For technological advances in communications and trading systems, they have contributed to the integration of the markets by making financial transactions easily accessible to investors across the world (Sharma & Wongbangpo, 2002).

As the economies of the world have become increasingly integrated in nature, investors are able to invest in assets from around the world. Apparently, asset pricing theories suggest that the integration of financial market has some implications on the relationship between risk and returns on asset. In fully integrated markets, the same asset pricing relationships apply and assets with similar risk have identical expected returns irrespective of the market. An investor with a well-diversified portfolio only faces international or global systematic risk. Where as in segmented markets, risk return relationship varies across countries and risk may not be the same because the sources of risk are different. In this case, investors only diversify away domestic unsystematic risk and world risk factor has no ability to explain its expected returns.

Hence, with the increasing nature of financial market integration, academics and practitioners are interested in understanding how to explain the returns on the set of international assets available to investors.

For emerging markets or developing economies which includes ASEAN countries, these countries have initiated financial liberalization process during the early 1980s (Koo & Maeng, 2005) as well as increasing international trade linkages. Table 1.2 shows the trends and dates of liberalization in ASEAN 5 markets.

Table 1.2 ***Trends and Dates of Liberalization in ASEAN-5 Countries***

Country	**Opening date**	**Degree of Openness**
Malaysia	December 1988a	30% for banks and institutions; 100% for remaining stocks
Philippines	October 1989a June 1991d	Investable up to 40% 100% foreign ownership
Thailand	September 1987a	Investable up to 49%
Singapore	June 1978b	Investable up to 100%
Indonesia	September 1989c	Investable up to 49%

Source:a International Finance Corporation (1997) official liberalization date. The IFC index: Methodology, definitions and practices. Emerging market data base, Washington, D.C, World Bank.
b International Monetary Fund, Annual report on Exchange Arrangements and Exchange Restrictions, various issues, Washington DC.
c Bekaert, Harvey and Lumsdaine (2002)
d Bekaert and Harvey (2000) argued that Foreign Investment Act was signed into law in June 1991 by Philippine government, therefore the date October 1989 is hard to justify. Under this Act, all restrictions on foreign investments were removed over a period of 3 years.

Since trade and financial liberalization are widely believed to be major forces behind financial integration, thus the attempt of these countries to liberalize their domestic financial systems and remove restrictions in international trade and capital flows, may have great impact on the degree of integration between these financial markets and the world financial markets. Consequently, since the degree of integration may have implications on the asset pricing, coupled with the need to assess the risk and returns inherent in ASEAN markets, thus studies on asset pricing that consider financial market integration on ASEAN-5 market has emerged as an important body of literature.

1.1 Problem Statement

Several studies such as Girard, Rahman and Zaher (2003) and Carrieri, Errunza and Majerbi (2006) have found evidence that emerging market stock returns significantly explained by local risk factors. For example, Girard et al. (2003) show that Malaysian market appear to have become more segmented suggesting the importance of local risk factors. These studies have focused on the role of local risk factors in explaining variations in stock returns, however many studies have provided evidence that these markets are integrated with the global financial market (Ibrahim, 2000; Masih & Masih, 1999). Such evidence may have implications on the risk return relationships of these stock markets, whereby according to asset pricing theory when market integrates with global market, returns of these markets may also be priced by global risk.

Abundant developments in world financial markets indicate that global risk factors have gained importance in determining equity returns (Koedijk & Dijk, 2004). Examples are the diminishing barriers to international investments, the stronger economic policy coordination as a result of the launch of the European Monetary Union, and in general, increased global competition that corporations face in markets at home and abroad (Koedijk & Dijk, 2004). With such developments, thus the local market factor may have become less effective in capturing a stock's exposure to global risk factors. However, the existing literatures on asset pricing that consider the global market risk of these markets have found mixed evidence. For example, while Bekaert and Harvey (1995) find no overwhelming evidence for the pricing of global risk in emerging markets including ASEAN markets, De Santis and Imrohoroglu (1997) shows that neither the local risk nor the world market risk are priced on emerging stock markets. In contrast, Phylaktis and Ravazzolo (2004) find the estimated price for the world market risk to be generally statistically significant for ASEAN markets. Thus, the role of global market risk in explaining returns in these markets is not clear, hence is worth to be explored further.

Studies by Bekaert and Harvey and De Santis and Imrohoroglu have used global risk as the only relevant market risk, however, several studies such as Click and Plummer (2005), Ng (2000), Heany, Hooper and Jaugietis (2000) have documented evidence that ASEAN markets are regionally integrated. Given the regional similarities due to common history, business conditions, cultural links and economic as well as political integration makes ASEAN countries integrated regionally (Hashmi & Tay, 2007) and due to these factors regional impacts are expected to be prevalent on these markets stock returns (Heaney & Hooper, 1999). Thus, with regional integration, returns of these markets may also be priced by regional risk. Despite such argument, existing literatures on asset pricing that includes the regional risk as one of the risk factor are very limited. Three studies which examine regional risk on ASEAN stock markets are Hashmi and Tay (2007) and Heaney and Hooper (2001; 1999). Even though focusing on the global and regional risk factors, both studies have not accounted for currency risk as examined in this study. In this regard, another important issue when dealing with asset pricing that consider the integration of financial markets is the deviations of purchasing power parity which warrants the consideration of currency risk.

Currency risk has been shown theoretically and empirically to have significant impact on stock returns. This include studies such as Patro, Wald and Wu (2002); Korajczyk and Viallet (1989) and Adler and Dumas (1983), among others. Studies by Bekaert and Harvey (1995) and De Santis and Imrohoroglu (1997) who apply the single-factor model where market risk is the only relevant risk have been argued to be misspecified because they fail to consider the role of currency risk (Phylaktis & Ravazzolo 2004). However, empirical studies on the pricing of currency risk have not produced conclusive evidence. For instance studies by Jorion (1991) and Hamao (1998) on the pricing of currency risk in the US and Japanese stock markets respectively, fail to find evidence that the currency risk is priced. In contrast, Phylaktis and Ravazzolo (2004) who examined ASEAN markets and expand the model by De Santis and Imrohoroglu (1997) to include currency risk found evidence that currency risk affect stock returns.

Thus, the issue whether currency risk is separately priced is still debatable and need to be investigated further. Even though Phylaktis and Ravazzolo (2004) have focused on the importance of currency risk and the global risk factor but they have not considered the importance of regional risk factor, thus provide a gap in the literature. Therefore, the pricing of global, regional and currency risk is a pertinent issue that needs to be addressed for better understanding of asset pricing on ASEAN 5 stock markets.

Several issues materialize from the above discussions. First, the development of global financial integration within the ambience of regional integration of ASEAN market invites interesting questions on the asset pricing of these markets' stock returns; does global risk significantly explain the returns in ASEAN-5 stock markets and what is the likely impact of regional integration on the asset pricing? Second, with the evidence of global and regional integration, it is hard to reconcile the component of systematic risk that explain the risk return relationship for ASEAN stock markets and lead to the question on whether ASEAN stock returns are more influenced by global or regional risk factors? Third, is currency risk separately priced when both global and regional integration is considered in the risk return relationship of ASEAN-5 stock markets.?

Thus, the objective of this study is to examine the risk return relationship in ASEAN 5 stock markets that consider the global and regional financial integration, specifically we would like to examine whether global and regional risk factors can explain ASEAN-5 stock returns and if they do to unveil the relative importance of global versus regional risk factors in explaining returns in these markets and also to examine the importance of currency risk.

In meeting the objectives, this study also examines possible effects of structural break that may have caused by the 1997 Asia financial crisis on the observed relationship. On this issue, several studies on asset pricing have argued that major events such as the financial crisis may have an impact on the model probably caused by the increase in the persistence of shocks and processing of new information on the region. For example Gerlach et al. (2006) have argued that the diversification benefits of integration are actually less than that suggested by an analysis incorrectly ignoring the shocks or crisis, since the existence of a structural break (such as the crisis) may disguise the true nature of any potential relationships between financial assets. In addition, the Asian crisis may have altered investor behavior in international equity returns, for instance during stable periods investors are mainly concerned about global risk factors, whereas close to a crisis they also include local factors in their information sets in forming expectations about future excess returns (De Lint, 2002).

The study on ASEAN-5 is relevant since these markets are highly representative of an emerging market with rapid growth in terms of market capitalization, trade volume and number of listed companies. The global trend in technological advancements and towards liberalization may have great impact on the degree of integration between these financial markets and the world financial markets. In addition, the increased economic cooperation in accordance with the ASEAN agreement, the closer proximity and strong cultural links (Sharma and Wongbangpo, 2002) may lead to regional integration of these markets. A detailed analysis of risk return relationship in these markets will undoubtedly shed light on other emerging markets with similar characteristics.

1.2 Research Questions

1. Is global market risk priced in ASEAN-5 stock markets?
2. Is regional market risk priced in ASEAN-5 stock markets?
3. If both global and regional market risk are priced in ASEAN-5 stock markets, which sources of risk is more dominant?
4. Is currency risk priced in ASEAN-5 stock markets?

1.3 Objective of Study

The main objectives of this study are:

1. To investigate whether global market risk, regional risk or both are priced in ASEAN-5 stock markets.

2. To assess the relative importance of global and regional risk factors in explaining stock returns of ASEAN-5.
3. To examine the pricing of currency risk in ASEAN-5 stock markets that consider both global and regional market risk.

1.4 Significance of Study

1.4.1 Theoretical contributions

1. Previous studies on asset pricing in ASEAN-5 market that allows for financial market integration have focused on global market risk as the only relevant risk factor. Such studies have ignored the importance of regional risk. This study expands the model to include regional risk as another relevant sources of risk. Such attempt contributes to the understanding of the impact of regional risk on the asset pricing arising from the increasing trend of trade and financial regionalism in the midst of global integration specifically on ASEAN 5 stock returns.

2. Existing literatures on asset pricing have considered the importance of currency risk in the context of global risk. This study attempt to examine the pricing of currency risk when both global and regional risk are included. This will provide clearer picture on the importance of currency risk in asset pricing when the markets are both globally and regionally integrated.

3. Many studies on ASEAN stock markets have found evidence of the impact of the 1997 ASEAN financial crisis. This study provides further evidence of the

impact of financial crisis on the pricing of global, regional and currency risk in ASEAN-5 stock markets.

1.4.2 Practical contributions

1. Most studies on asset pricing that considers the integration of financial market have focused on developed countries which is characterized as highly/fully integrated with world financial market. This study provides evidence on other lesser developed countries by examining ASEAN 5 countries which exhibit both global and regional integration.

2. This study assists in international financing and investment decisions in the area of investment analysis, risk management and cost of capital. The results will be of interest to investors who wish to measure the riskiness of ASEAN 5 stocks or assess the performance of managed funds. Following modern portfolio theory, an investor is only concerned about systematic risk which remains after all diversification opportunities have been exploited. Thus, an investor will be compensated with a risk premium only for bearing non-diversifiable or systematic risk. Therefore, from the viewpoint of an investor only systematic risk factors are regarded as relevant risk factors, that is, these risk factors which are priced in the stock market. Thus, determining the relevant risk factors on these stock returns provides valuable information to the investors.

3. Besides investors, the result of this study is useful to corporate managers undertaking cost of capital calculations and fund managers making investment decisions. Estimation of expected return or cost of equity for stocks is central to many financial decisions such as those relating to portfolio management, capital budgeting, and performance evaluation. Cost of capital can be substantially different among partially segmented capital markets. In addition, portfolio/ fund managers interested in global asset allocation may want to understand how relevant risk factors differ across countries and such information may be useful in their portfolio selection decisions.

4. The study that incorporates degree of market integration in asset pricing has implications for regional stability. There is broad agreement that internationally-integrated capital markets reduce the scope for independent monetary policy (see Palac-McMiken, 1997). If markets are highly integrated, this implies that a given country's economy cannot be effectively insulated from foreign influences. If ASEAN 5 insist on pursuing independent monetary policies in the environment of integrated capital market, their moves may have destabilizing effects on the region.

5. The study on ASEAN-5 stock returns is relevant since these markets are highly representative of an emerging market with rapid growth in terms of market capitalization, trade volume and number of listed companies. In addition, the study on this market is also of interest because of the increased economic cooperation in accordance with the ASEAN agreement, the successful financial reform, and the distinguished structure of emerging stock

markets. A detailed analysis of stock returns in these markets will undoubtedly shed light on other emerging markets with similar characteristics.

1.5 Glossary of terms

*Beta Coefficient***:** A standardized measure of systematic risk based upon an asset's covariance with the market portfolio.It is a measure of market risk, which is the extent to which the returns on a given stock move with the stock market.

Capital asset pricing model (CAPM): A theory concerned with deriving the expected or required rates of return on risky assets based on the assets' systematic risk levels. The model is based on the proposition that any stock's required rate of return is equal to the risk-free rate of return plus a risk premium that reflects only the risk remaining after diversification.

Covariance: A measure of the degree to which two variables, such as rates of return for investment assets, move together over time relative to their individual mean returns.

Exchange rate risk: Uncertainty due to the denomination of an investment in a currency other than that of the investor's own country.

Expected rate of return: The return that analysts' calculations suggest a security should provide, based on the market's rate of return during the period and the security's relationship to the market.

Market portfolio: The portfolio that includes all risky assets with relative weights equal to their proportional market values.

Market risk: the part of a security's risk that cannot be eliminated by diversification.

Market risk premium: The amount of return above the risk-free rate that investots expect from the market in general as compensation for systematic risk.

Relevant risk: The risk of a security that cannot be diversified away, or its market risk. This reflects a security's contribution to the riskiness of a portfolio.

Systematic risk: The variability of returns that is due to macroeconomic factors that affect all risky assets. Since the risk affects all risky assets, it cannot be eliminated by diversification.

1.6 Organization of the thesis

There are six sections in the thesis. The introduction consists of the background, problem statement, research questions and objectives, significance, glossary of the terms and the organization of the thesis. Following the introduction is the background of ASEAN countries which describes the history, financial liberalizations and regional and global trade linkages whereby both trade and financial liberalization have been suggested in the literature to lead to financial integration. Chapter three reviews the literature related to financial integration and international asset pricing and develops respective hypothesis. Chapter four discusses the methodology and data used followed by the findings in chapter five. Chapter six is the discussions, conclusions, contributions, limitations of the study and suggestions for future research.

CHAPTER 2

ASEAN: BACKGROUND, FINANCIAL LIBERALIZATIONS AND REGIONAL AND GLOBAL ECONOMIC LINKAGES.

2.0 Introduction

This section describes the background of ASEAN-5 which covers the formation, financial liberalizations in each country and the economic cooperation within ASEAN-5 members and external relations with countries outside ASEAN. Since economic theory and empirical studies suggest that financial liberalizations and economic integration can lead to financial integration, thus the objective of this chapter is to highlight both financial liberalizations and regional and global trade linkages that have taken place in ASEAN-5.

2.1 ASEAN: Background

The Association of Southeast Asian Nations (ASEAN) was formed on August 8, 1967. Its members consist of ten countries located in Southeast Asia namely Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia. ASEAN was created to strengthen regional cohesion and self-reliance through economic, social, and cultural cooperation. The history of ASEAN started in 1961 with the setting up of an organization called the Association of Southeast Asia, an alliance consisting of Philippines, Malaysia, and Thailand. ASEAN, however, was established on August 8, 1967, when foreign ministers of five countries namely Indonesia, Malaysia, Philippines, Singapore, and Thailand met at the Thai Department of Foreign Affairs building in Bangkok and signed the ASEAN Declaration, more commonly known as the Bangkok Declaration. Its aims include the acceleration of economic growth, social progress, cultural development among its members and the promotion of regional peace. Brunei Darussalam became the sixth member after it joined on January 8, 1984, a week after the country became independent on January 1. On July 28, 1995, Vietnam became the seventh member, followed by Laos and Myanmar who joined two years later in July 23, 1997. Cambodia joined on April 30, 1999, following the stabilization of its government. Initially, Cambodia was supposed to join together with Laos and Myanmar, but was deferred due to the country's internal political problems.

The organization holds meetings, known as the ASEAN Summit, where heads of government of each member meet to discuss and resolve regional issues, as well as to conduct other meetings with other countries outside of the bloc with the intention of promoting external relations. The ASEAN Leaders' Formal Summit was first held in Bali, Indonesia in 1976. Its third meeting was held in Manila in 1987 and during this meeting, it was decided that the leaders would meet every five years. Consequently, the fourth meeting was held in Singapore in 1992 where the leaders again agreed to meet more frequently, deciding to hold the summit every three years. In 2001, it was decided to meet annually to address urgent issues affecting the region. Member nations were assigned to be the summit host in alphabetical order.

2.1.1 ASEAN Vision 2020

In order to achieve its inspiration, ASEAN have formulated various strategies which includes the ASEAN Vision 2020. The vision not only covers the importance of integrating member countries within ASEAN but also with external relations. A partnership in dynamic relationship is one of the vision aim towards bringing the member countries together focusing mainly to forge closer economic integration within ASEAN. This includes creating a region with a free flow of capital, equitable economic development and reduced poverty and socio-economic disparities. Besides focusing on the regional linkages, ASEAN also focus on the global interactions and this is spelled through one of the vision identified in ASEAN Vision 2020 which is an outward-looking ASEAN. Such vision focus on ASEAN playing a pivotal role in international arena and advancing ASEAN's common interest. To meet this vision, ASEAN leaders adopted among others the ASEAN Economic Community (AEC), external relations function and ASEAN Charter to strengthen not only relationships outside ASEAN but also within ASEAN.

The AEC aims to create a stable, prosperous and highly competitive region, functioning as a single market and production base by 2020. This aim is to have a free flow of capital, along with equitable economic development, and reduced poverty and socio-economic disparities within and across its member countries. Areas under the AEC include finance, trade, investment, industry, services and others. With respect to ASEAN Charter, it was established in 2005. The Charter serves as a legal and institutional framework and codify ASEAN norms, rules and values of ASEAN and will reaffirm principles, goals and ideas contained in ASEAN's agreements. These include among others:

- Promotion of community interest for the benefit of all ASEAN member countries;
- Promotion of regional solidarity and cooperation;
- Enhancing beneficial relations between ASEAN and its friends and partners;
- Continuing to foster a community of caring societies and promote a common regional identity;

- Commitment to strengthen ASEAN’s competitiveness, to deepen and broaden ASEAN’s internal economic integration and linkages with the world economy.

2.2 Financial Liberalization in ASEAN-5[1]

Economic theory and empirical studies suggest that financial liberalization can lead to financial integration. O’Brien (1992) as cited by Palac-McMiken (1997) has stated that deregulation and liberalization has clearly encourage globalization and integration because liberal markets and systems tend to be open, providing greater ease of access, and greater transparency of pricing and information. This is supported by Hultman and McGee (1993) as reported by Palac-McMiken (1997), who pointed out that the removal of restrictions on capital flows have contributed to the integration process.

Most finance textbooks define financial liberalization as the abolition of explicit controls on the pricing and allocation of credit and on international capital movements with the main aim to establish the market-based financial system. As detailed out by Shaw (1973), financial liberalization meant a) market-determined interest rates; b) greater ease of entry into the banking sector to encourage competition; c) the elimination of directed credit programs; d) reduced fiscal dependence of the state on credit from the banking system (to allow for greater expansion of credit to the private sector; e) the integration of formal and informal markets and f) a movement towards equilibrium exchange rates and eventually flexible exchange rate regimes with open capital accounts. In relation to this,

[1] Trade policy reviews : First press Release, Secretariat and government Summaries, December 2007. http://www.ASEAN.html.

McKinnon (1991) gave four sequence of financial liberalizations. The first step is the appropriate macroeconomic policy, which includes fiscal control, balancing the government budget, privatizing state-owned enterprises, and ensuring an adequate internal revenue service for the purpose of tax collection, followed by the second sequence which is the liberalization of domestic financial markets by allowing interest rates to be determined freely by the market, freeing up onerous reserve requirements, and privatizing the banks. This step also includes the establishment of commercial law and the liberalization of domestic trade. Step three covers the liberalization of foreign exchanges, which includes the liberalization of the exchange rate for current account transactions and the liberalization of tariffs, quotas, and other international trade restrictions. The final step is the liberalization of international capital flows.

Until the 1980s, extensive government intervention was the norm in the financial markets of developing countries. For examples ceilings were imposed on bank interest rates; credit was allocated by administrative decision rather than market criteria; and inflows of foreign capital were controlled strictly. Over the last twenty years, however, many developing countries including ASEAN countries have started to liberalize their financial markets by abolishing these types of controls, specifically the more advanced ones including Malaysia, Indonesia and Thailand which have reduced restrictions on capital account transactions and barriers to entry of foreign financial institutions into local markets and to trade in financial services since the early 1990s (Eichgreen and Mussa 1998). To increase the flow of investment into ASEAN, the concept of an ASEAN Investment Area (AIA) was endorsed at the Fifth ASEAN Summit, in which barriers to intra-regional investment would be lowered;

regulations would be liberalized and incentives would be offered to boost regional investment. Table 2.1 provides a summary of regulation for cross border investment and portfolios and loans in ASEAN-5 which highlight the financial liberalization measures taken by these countries.

Table 2.1 ***Summary of Regulation for Cross Border Investment and Portfolios and Loans in ASEAN-5***

Regulation of Cross-border investments in ASEAN-5					
Countries	Capital Inflow			Capital Outflow	
	Money market instrument	Bond market instrument	Equity instrument	Resident investors	Nonresident investors
Malaysia	No restrictions	Nonresidents free to purchase	Bank investment by nonresidents less than 30% of equity in a bank	MYR50,000. Requires approval, investment abroad allowed with certain limits	Remittances must be in unrestricted foreign currency
Indonesia	Foreign investor may purchase locally	Nonresidents can purchase debt securities	Nonresidents less than 10% of investment fund	Mutual funds and insurance companies not allowed to invest abroad	Reporting requirements, generally no restrictions
Thailand	No restrictions	No restrictions in Thai debt securities	Foreign investors subject to various limits	Requires regulatory approval, commercial banks can hold less than 20% of capital fund	Require documentation for repatriation of portfolio investments
Singapore	No restrictions	No restrictions	No restrictions	No restrictions	Singapore dollar proceeds must be converted to foreign currency
Philippines	Registration required if foreign exchange used is from local banks	Registration required if foreign exchange used is from local banks	Registration required if foreign exchange used is from local banks	Registration of investments, approval of investments less than USD6 million per year	Registration required if foreign exchange used is from local banks, no approval needed

Table 2.1 Continued

Cross-border flows: Portfolio and Loans				
Countries	Portfolio investment from abroad		Portfolio investment abroad by resident	
Malaysia	No restrictions	Approval required for issuance	Registration required for more than MYR50,000, allow investments by resident fund management or trust companies up to 30% of net asset value of investment-linked funds	Approval required but usually given when issuance will be used to yield benefits for country
Indonesia	Allowed except in local currency, reporting required for certain amounts	Allowed except for securities dominated in rupiah	Allowed with certain requirements	Allowed except in rupiah currency for equity and related products
Singapore	No restrictions	Nonresident financial institutions have to swap or convert S$ proceeds into foreign currency before remitting	No restrictions	No restrictions
Thailand	No restrictions except more than 50 million baht per consolidated entity, foreign equity limited to 25% in local banks, foreigners allowed to hold 100% of local financial institutions for 10 years	Approval from Ministry of Finance and Bank of Thailand required	Approval required from Bank of Thailand	Requires Securities Commisions (for equity and related products) or Bank of Thailand (for money market) approval

With regard to equity market liberalization, Bekaert, Harvey and Lundbland (2003) dated the official equity market liberalization for emerging markets inclusive of ASEAN-5. The date refer to a date of formal regulatory change giving foreign investors the opportunity to invest in domestic equity securities and domestic investors the right to transact in foreign securities. The official liberalization date for Thailand, Malaysia, Indonesia and Philippines is presented in Table 2.2. As can be observed, the liberalizations are clustered in the late 1980s or early 1990s.

Table 2.2 ***Official Liberalization Dates in ASEAN-5***

Country	Official liberalization date	Classification
Indonesia	September 1989	Minister of Finance allows foreigners to purchase up to 49% of all companies listing shares on the domestic exchange, excluding financial firms
Malaysia	December 1988	Budget calls for liberalization of foreign ownership policies to attract more foreign investors
Philippines	June 1991	Foreign Investment act signed into law. The Act removes, over a period of three years , all restrictions on foreign investments
Thailand	September 1987	Inauguration of the Alien Board on Thailand's Stock Exchange. The Alien Board allows foreigners to trade stocks of those companies that have reached their foreign investment limits.

Source: Beakert, Harvey and Lunbland (2003)

2.2.1 Financial liberalization in Indonesia

Foreign exchange controls were eliminated in Indonesia in 1971, partly at the urging of the International Monetary Fund (IMF) and also because these controls reduced the efficiency of international trade and payments which were difficult to enforce given Indonesia's proximity to an open international financial center in